

REMARKS

Claims 1-2, 7-10, 13, 16-17 and 19-20 stand rejected under 35 USC §103(a) as being unpatentable over Wallace, U.S. patent 5,988,497 in view of Cohen et al., U.S. patent 5,946,380. Claims 3-4, 11-12, 14 and 18 stand rejected under 35 USC §103(a) as being unpatentable over Wallace in view of Cohen et al., U.S. patent 5,946,380 further in view of Jankowitz et al., U.S. patent 5,875,236. Claims 5-6 and 15 stand rejected under 35 USC §103(a) as being unpatentable over Wallace in view of Cohen et al., and further in view of Sawyer et al., U.S. patent 6,324,271.

Claim 4 has been amended to more clearly state the invention.

Reconsideration and allowance of each of the claims 1-20 is respectfully requested.

Wallace, U.S. patent 5,988,497 discloses a dynamic authentication process having multiple tiers of validation. A first tier of validation authenticates the credit transaction based upon static personal identification numbers. If this first tier of validation is satisfied, a threshold determination is made as to whether a secondary tier of validation is required. These thresholds are defined by either the service provider or the card holder to address the additional costs of a second tier of validation. In FIG. 1, the two-tiered validation process begins in step 102 where the system receives a card number from a card holder. Next, in step 104, the system prompts the card holder for a static predefined PIN. In the context of calling cards, the static predefined PIN may exist as a part of the card number itself that is provided to the system. After the static PIN is received, the system determines in step 106 whether the static PIN matches the

PIN stored in a database for that account number. If the PINs do not match, the proposed transaction is invalidated in step 108. If one or more thresholds are exceeded (or conditions met) as identified by the determination in step 110, the system then prompts the card holder for a variable PIN in step 112. In various embodiments, the card holder is automatically prompted by a voice response unit (VRU) for computer ordering or calling card use, by an automated teller machine (ATM) for ATM withdrawals, by a computer program when conducting monetary transactions over a computer network (e.g., Internet), etc. In each case, a number can be easily entered on all current authentication devices (e.g., phone key pad, computer key board, etc.) that require input of a transaction amount. If it is determined in step 114 that the variable PINs do not match, the transaction is invalidated in step 116. Alternatively, the card holder could be given additional chances to provide a correct variable PIN. Generally, the invalidation of the transaction in step 116 could also be accompanied by action that labels that particular card as being presumptively fraudulent. This labeling is accomplished through the update of a database record associated with that particular card. After being labeled as presumptively fraudulent, each successive transaction that is based on that card will require the second tier of validation. If the card holder is in the immediate vicinity, the card could also be confiscated. Finally, if the system determines in step 114 that the second tier of validation is satisfied, the transaction is authenticated in step 118. Alternatively, if the system determines in step 110 that the first tier of validation is satisfied and the second tier of validation is not required, the system will also validate the transaction.

Cohen et al., U.S. patent 5,946,380 discloses a communication system that includes a network switch coupled through a telephone line uniquely associated with each customer for budgeted telephone calling time and amount, either pre-paid or post-paid, the budgeted amount being recorded in the system for calling purposes. A server is coupled to the switch for automated control of the budgeted telephone calls and costs. The server includes a control processor having access to databases for recorded budgeted amounts and call routing. A voice response unit is coupled to the processor and sends messages to the calling customer at the beginning of each budget telephone call indicating remaining budgeted telephone calling time and amount available to the calling purposes. The processor debits the customer account by an amount reflecting the call costs as the call proceeds. A voice message advises the calling customer when the available time and costs for the budgeted telephone call will terminate. Depending upon customer preference, the call may (i) terminate when the budget amount is exceeded or (ii) continue subject to a warning that the call budget has been exceeded with a prompt to obtain additional prepaid budgeted calling time and cost or (iii) continue the call and subsequent calls subject to later payment by the calling customer. Calls are placed directly to the calling party without accessing a special toll number or providing a credit card number.

Jankowitz et al., U.S. patent 5,875,236 discloses an automated system for detecting and preventing fraudulent telephone calls in a telecommunications network. Prior to completing a telephone call, a database is accessed within a telecommunications network to determine whether the call should be completed. The

billing number to which the call is to be charged is compared to a customer record assigned to the billing number and stored in the database. The customer record is checked against a treatment category code which combines geographic call restrictions and thresholding. A call may be identified as potentially fraudulent and blocked if the customer record associated with the billing number indicates that the account is in arrears. In addition, at predetermined intervals during the progress of the call and at the end of each allowed call to be charged to that billing number, the time and/or cost of each call is estimated and added to the total stored in a user-defined threshold counter in the database. When the total stored in the counter exceeds a predetermined threshold limit, a potentially fraudulent call is identified. In this manner, call authorization is performed on a per call basis to prevent fraudulent telephone calls.

Sawyer et al., U.S. patent 6,324,271 discloses a system and method for caller identification, named certified caller ID (CCID) provides an enhancement to existing calling line identification services by providing the terminating end of a telephone call with a cryptographically-certified identity of the caller, rather than the identity associated with the calling telephone line. A less secure variation of CCID could, at the option of the service provider, indicate that the call has been certified if the call were placed using a telephone calling card with a standard PIN. Alternatively, a more secure variation could be implemented in which the authentication took place in conjunction with a known biometric confirmation mechanism such as a fingerprint scanning, voice recognition, iris scanning of the eye, or hand characterization. Since different authentication mechanisms may be used for CCID, it is envisaged that a

certification level would be associated with each call and delivered to the terminating end together with the reserved symbol that denotes that the identity of the caller has been certified. The individual or equipment accepting the call could then act on the certification level as appropriate.

Each of the independent claims 1, 13 and 20 has been amended to more specifically define the method, computer program product and system for implementing calling card security of the present invention. As amended, each of the independent claims 1, 13 and 20 recite sequentially checking a plurality of predefined options to identify user selected options for the calling card using a stored calling card record, said calling card record storing a calling card number and a time remaining for the calling card; said calling card record including said plurality of predefined options and each said user selected options for the calling card. This step is not disclosed in the Wallace reference and a combination of all the teachings of the references of record would not achieve the claimed invention as recited by claims 1, 13, and 20, as amended.

The Wallace reference teaches the use of a first tier of validation and a threshold determination made as to whether a secondary tier of validation is required. These thresholds are defined by either the service provider or the card holder to address the additional costs of a second tier of validation. There is neither an express nor an implied suggestion in the cited Wallace reference for any sequential checking of a plurality of predefined options to identify user selected options for the calling card; nor any suggestion of using a stored calling card record.

The Cohen et al. reference teaches a communication system where a

telephone line is uniquely associated with each customer for budgeted telephone calling time and amount, either pre-paid or post-paid. In Cohen et al., the budgeted amount is recorded in the system for calling purposes. Cohen et al. teaches the use of a user selected preference for terminating a call from the uniquely associated customer telephone line when the budgeted telephone amount is exceeded; however, Cohen et al. provide no suggestion of using a stored calling card record as taught and claimed by Applicants. Cohen et al. provide no suggestion of any use of a calling card. Cohen et al. provide no suggestion of sequentially checking a plurality of predefined options to identify user selected options for the calling card using a stored calling card record, said calling card record storing a calling card number and a time remaining for the calling card; said calling card record including said plurality of predefined options and each said user selected options for the calling card as recited in independent claims 1, 13, and 20.

Applicants respectfully submit that the subject matter of the invention as recited in independent claims 1, 13, and 20 is not rendered obvious from the total teaching of Wallace and Cohen et al. further combined Jankowitz et al. and Sawyer et al. The method for identifying whether a telephone call be to billed to a billing number in a telecommunications network is potentially fraudulent taught by Jankowitz et al. adds nothing to suggest the subject matter of the invention as recited in independent claims 1, 13, and 20. The system and method to provide the terminating end of a telephone call with a cryptographically-certified identity of the caller of Sawyer et al. adds nothing to suggest the subject matter of the invention as recited in independent

claims 1, 13, and 20.

Only Applicants teach the use of the stored calling card record including said plurality of predefined options and each said user selected options for the calling card. There is neither an express nor an implied suggestion in cited Cohen et al., Jankowitz et al. and Sawyer et al. which would have motivated the artisan to modify Wallace reference in a manner which would result in that which is claimed. Consequently, it is submitted that these claims 1, 13 and 20 are patentable.

Dependent claim 3 further defines the computer implemented method for implementing calling card security of claim 1 wherein the step of checking said plurality of predefined options to identify user selected options for the calling card includes the step of checking for use from a specified telephone number being enabled. This feature of implementing calling card security is not suggested by the references of record. The Jankowitz et al. method for identifying a potentially fraudulent telephone call be to billed to a billing number in a telecommunications network adds nothing to suggest the subject matter of the invention as recited in independent claim 1, nor the subject matter of dependent claim 3. Thus, claim 3 is further patentable over the references of record.

Dependent claim 5 further defines the computer implemented method for implementing calling card security of claim 1 wherein the step of checking said plurality of predefined options to identify user selected options for the calling card includes the step of checking for voice recognition being enabled. This feature of implementing calling card security is not suggested by the references of record. The Sawyer et al.

method for providing a terminating end of a telephone call with a cryptographically-certified identity of the caller adds nothing to suggest the subject matter of the invention as recited in independent claim 1, nor the subject matter of dependent claim 5. Thus, claim 5 is further patentable over the references of record.

Dependent claim 7 further defines the computer implemented method for implementing calling card security of claim 1 wherein the step of checking said plurality of predefined options to identify user selected options for the calling card includes the step of checking for a limited number of calls from a specified telephone number being enabled. This feature of implementing calling card security is not suggested by the references of record. The Wallace patent discloses the use of geographical limitations; however, Wallace does not suggest includes the step of checking for a limited number of calls from a specified telephone number being enabled or the subject matter of dependent claim 7. Thus, claim 7 is further patentable over the references of record.

Dependent claim 11 further defines the computer implemented method for implementing calling card security of claim 1 wherein the step of checking said plurality of predefined options to identify user selected options for the calling card includes the step of checking for a limited time for calls being enabled. This feature of implementing calling card security is not suggested by the references of record. The Jankowitz et al. method for identifying a potentially fraudulent telephone call be to billed to a billing number in a telecommunications network adds nothing to suggest the subject matter of the invention as recited in independent claim 1, nor the subject matter of dependent claim 11. Thus, claim 11 is further patentable over the references of record.

Serial No. 09/881,168

Dependent claims 2-12 and 14-19 further define the invention of patentable claims 1 and 13, and are likewise patentable.

Applicants have reviewed all the art of record, and respectfully submit that the claimed invention is patentable over all the art of record, including the references not relied upon by the Examiner for the rejection of the pending claims.

It is believed that the present application is now in condition for allowance and allowance of each of the pending claims 1-20 is respectfully requested. Prompt and favorable reconsideration is respectfully requested.

If the Examiner upon considering this amendment should find that a telephone interview would be helpful in expediting allowance of the present application, the Examiner is respectfully urged to call the applicants' attorney at the number listed below.

Respectfully submitted,

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